CITY OF
SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: Public Safety, Finance and
Strategic Support Committee

FROM: Stephen R. Ferguson
Chief Information Officer

**SUBJECT: Report on Infrastructure – Priority
Projects**

DATE: February 4, 2010

Approved _Deanna Str_   Date _2/8/10_

RECOMMENDATION

It is recommended that the Public Safety, Finance and Strategic Support Committee accept this
Report on Infrastructure – Priority Projects.

BACKGROUND

On August 20, 2009, the Chief Information Officer presented a report to the Public Safety,
Finance and Strategic Support Committee on Priority Projects for Technical Infrastructure. This
memorandum provides the Committee with an update on the priority projects still in progress
and a discussion of current and future issues.

Executive Overview

The City of San José's Information Technology Department (ITD) is responsible for managing
the data and voice infrastructure throughout the organization. This infrastructure serves as the
technical backbone, supporting such Citywide applications as HR/Payroll, email, FMS, Call
Center(s), and Utility Billing Applications just to name a few. A wide variety of departmental
applications also use the voice and data infrastructure to meet their primary business objectives;
the technical infrastructure must support the demands of users who rely upon it to perform their
daily work as well as residents and business who rely upon it to communicate with and
participate in City operations.

As a result of ongoing budget and personnel reductions, the department has necessarily refocused
its remaining resources to address enterprise needs by maintaining the daily operational
requirements of our customers. Continued resource reductions in response to economic
constraints will lead to service delays at best, and most likely the inability for ITD to deliver
technical guidance, oversight or management of technology projects for individual departments.
As the infrastructure ages, substantial investment is required to maintain the same level of
service currently being delivered. As a result, the department has begun to develop a strategy to
reduce operating expenses in three ways:

1. Focus on implementing solutions that leverage common "off the shelf" components such as servers from major manufacturers, etc., and transitioning from more costly proprietary hardware, software and voice communications.
2. Look to cost effective SaaS providers for self contained technologies when the transition can quickly be made.
3. Consolidate the support base to leverage staff expertise, rather than maintain separate platforms for end-users and large enterprise systems. The department has begun evaluating migration to a single platform to increase the number of available staff that are skilled to respond to issues in multiple areas. ITD is currently working with Dell Professional Services to benchmark the existing environment and present a plan for migration from a UNIX environment to a much less costly Windows environment that staff will also use to implement a "proof-of-concept" with the HR/Payroll system.

Priority Projects

Voice and Data Communications

The City's voice and data communications strategy provides the foundation for services that employees, residents and businesses rely upon. At the heart of these services is the wired and wireless infrastructure maintained by ITD. This infrastructure allows for the interoperability of voice and data services between users in support of service delivery.

Police Department Substation – The fiber pull is complete with termination of the fiber still outstanding. ITD is also working with the Police Department on an analysis of technology needs to open the Police substation.

Happy Hollow Park and Zoo – The fiber pull is complete with major technology components such as desktop, servers and network(s) to be complete by mid-February in time to support the opening.

55 South Market Street (MAE WEST) – The fiber connectivity has been completed and ITD is currently working with several vendors to price options for alternative internet connectivity. Once internet connectivity is completed, further consolidation of telecommunication lines and monthly recurring charges will result.

VoIP Deployment at the Police Campus – VoIP deployment at the PD campus was delayed for several reasons:

1. A viable and supported platform must be submitted and implemented in order to achieve the Department of Justice approval for a new network design. The Nortel bankruptcy and subsequent sale of Nortel Enterprise Services to Avaya Corporation slowed that process, as staff is still in discussions with the vendor on a viable product portfolio roadmap.
2. Continuing staff reductions limits the number of resources available to focus on this project.

3. Testing and integration of e911 enhancements are currently pending resolution of the product roadmap to complete e911 integration that supports transition of the Public Safety dial plan.

ITD anticipates receiving a detailed product roadmap from Nortel/Avaya by the end of February 2010.

Storage Area Network (SAN) – The SAN project is complete yielding a reduction of 27 file servers.

Issues

Aging Infrastructure/Infrastructure Backlog

Much of the technical infrastructure within the City such as cabling, networks, telephony and servers, are at the end of life expectancy. Even the converged network, implemented with the opening of the new City Hall, is five years into its seven-year life expectancy. Remote facilities such as Fire Stations and Community Centers are long past recommended useful life. As the infrastructure continues to age, the number of outages, cost for support, and security risks rise as ITD attempts to maintain existing levels of service. A current snapshot of infrastructure viability is provided in the table below:

Infrastructure At-a-Glance		
Optimized for Service Delivery	*Adequate for Service Delivery*	*At End-of-Life*
Desktops: 1278 (28%)	Desktops: 1076 (24%)	Desktop: 2146 (48%)
Servers: 42 (13%)	Servers: 94 (28%)	Servers: 194 (59%)
Network Ports: 2713 (42%)	Network Ports: 1257 (19%)	Network Ports: 2557 (39%)
Microsoft Office License: 6500 (0%)	Microsoft Office License: 6500 (0%)	Microsoft Office License: 6500 (100%)
Email Licensing: 6500 (0%)	Email Licensing: 6500 (0%)	Email Licensing: 6500 (100%)
Windows Client Licenses (0%)	Windows Client Licenses (0%)	Windows Client Licenses (100%)
Lowers operating expenses	Higher maintenance costs during transition	Costly to maintain / fix / replace
Meets existing & future demands	Meets current demands only	Does not meet current demands
Under manufacturers' support	Halfway through lifecycle / manufacturers' support	No manufacturers' support
		No budget or budget planning is currently underway
		Interoperability with entities outside the City is severely hampered

Reduced Ability to Support Departmental Needs

On July 27, 2009 the CIO released a memorandum to Senior Staff describing scope and service level reductions as a result of ongoing budget cuts. 2010-2011 budget proposals based on required targets sees a continuation of this trend as the department continues with its "keep the lights on" strategy. A more comprehensive update on service level reductions and the consequences of reorganization as a result of the budget proposals will be provided in the next status report to the Committee after the 2010-11 budget has been adopted.

ARRA (American Reinvestment and Recovery Act)

On January 15, 2010, the Department of Agriculture and the Department of Commerce issued the second notice of funding availability (NOFA) for ARRA funding opportunities related to broadband projects. This second notice differed from the first notice in a couple of notable ways. First, while the requirement that projects meet criteria for "unserved" and "underserved" populations was relaxed, the notice was clear that projects meeting these criteria would get preferential scoring. Staff has not been able to identify any projects on our project lists that can meet either of these criteria.

Further, the second notice adds new evaluation criteria that encourages joint use projects. Since we have no joint use projects in the pipeline at this time, developing, designing and engineering a joint use project in the 45 day proposal submission window is not possible at current staffing levels.

In addition to the two changes noted above, this new notice also includes a requirement for a 20% City match. We have discussed this requirement with the Budget Office and the City is not able to identify any unallocated funds to address the 20% match requirement.

Given the additional criteria described in this new NOFA, plus the 20% funding match requirement, staff believes there is no realistic opportunity for the City to seek ARRA funds for local broadband. We will continue to monitor developments in this area and report any changes as they occur.
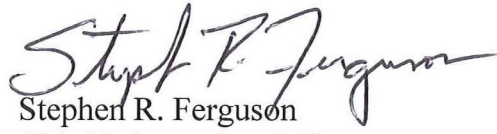
CONCLUSION

Although ITD is working on several strategies to lower operating expenses, these strategies alone will not be enough to meet the severity of the budget target for FY 2010-2011. As a result, the department will need to proactively consolidate lines of service ahead of the adopted budget in an effort to minimize downtime for users as reductions are realized.

As ITD continues to reduce service delivery, departments are in the position of funding technical solutions independently. These solutions often cost more in the aggregate and further silo the organization. Retaining basic and existing functionality of Citywide technologies is already at risk and the infrastructure will continue to degrade without substantial investment.

Should you have any questions regarding the projects discussed in this memo, please contact Vijay Sammeta, Deputy Director of Technical Infrastructure, at x53566.

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